REMARKS

This Amendment is filed in reply to the outstanding Official Action of September 20, 2002 and it is believed to be fully responsive to the Official Action for reasons set forth herein below in greater detail.

In the Official Action, the Examiner withdrew the allowability of Claim 14 and instead rejected Claim 14 pursuant to 35 U.S.C. §103(a), as unpatentable over Wang, *et al.* (U.S. Patent No. 5,831,640) (hereinafter "Wang") in view Schilling, *et al.* (U.S. Patent No. 6,236,405) (hereinafter "Schilling"). The Examiner further withdrew the allowability of Claim 11 by rejecting the newly added Claim 19, which incorporated the allowable Claim 11. The Examiner indicated that Claims 12 and 15-17 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Finally, the Examiner indicated that Claim 18 is allowed over the prior art of record.

At the outset and before addressing particular rejections raised in the present Official Action, the Applicants have cancelled the allowable Claim 15 and have incorporated its subject matter into the independent Claim 14. Additionally, the Applicants have cancelled the allowable Claim 12 and have incorporated its subject matter into the independent Claim 19. Applicants respectfully submit that the amendments to the claims add no new subject matter to the above-identified application.
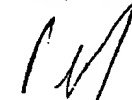
For the foregoing reasons the Applicants respectfully request the Examiner to withdraw the rejections of independent Claims 14 and 19 pursuant to 35 U.S.C. §103(a). The Applicants further respectfully request the Examiner to withdraw the rejections of Claims 2-6, which respectively, whether directly or indirectly, depend

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from the allowed independent Claims 14. The Applicants further respectfully request the

Examiner to withdraw the rejections of Claims 7-10, 13-14 and 16-17, which depend

respectively, whether directly or indirectly, from the now allowed independent Claim 19.

Attached hereto is a marked-up version of the changes made to the claims

by the present amendment. The attached marked-up version is captioned: "**VERSION**

WITH MARKINGS TO SHOW CHANGES MADE".

In view of the foregoing, the Applicants believe that the-above-identified

application is in condition for allowance and the Applicants henceforth respectfully

solicit such allowance. If the Examiner believes a telephone conference might expedite

the allowance of this case, the Applicants respectfully request the Examiner to call the

undersigned, Applicants' attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,

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Serial No: 09/502,994   Docket: 11142

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 14 and 19 have been amended as follows:

14. (Twice amended) A computer graphics processor system having the capability of mapping texture onto a three dimensional object in a scene being displayed, the system comprising:

a texture address calculator for generating texel addresses for a list of primitives being processed;

a texture main memory containing an array of texels, each texel having an address and one of N identifiers;

a texture cache memory having addresses partitioned into N banks, each bank containing texels transferred from said main memory that have the corresponding identifier;

a texture cache controller for determining and requesting the necessary transfer of texels from said texture main memory addresses to said texture cache memory addresses; and

a texture cache arbiter for scheduling and controlling the actual transfer of texels from said texture main memory into the texture cache memory and controlling the outputting of texels for each pixel to a interpolating filter from the cache memory, said

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cache arbiter coupled between said controller and said texture cache memory for

determining which texels in the cache memory can be overwritten when new texels are

determined to be transferred to said cache memory by said cache controller, said texture

cache arbiter transfers said texels from said texture main memory into the cache memory

according to a look-ahead algorithm to hide read and write access clock cycles between

sequential pixels.

19. (Amended) A computer graphics processor system having the

capability of mapping texture onto a three dimensional object in a scene being displayed,

the system comprising:

a texture address calculator for generating texel addresses for a list of

primitives being processed;

a texture main memory containing an array of texels, each texel having an

address and one of N identifiers;

a texture cache memory having addresses partitioned into N banks, each

bank containing texels transferred from said main memory that have the corresponding

identifier;

a texture cache controller for determining and requesting the necessary

transfer of texels from said texture main memory addresses to said texture cache memory

addresses, said cache controller including a plurality of least recently used controllers

coupled in succession to thereby transfer texels according to a least recently used

replacement algorithm, said texture cache controller pre-fetching necessary neighboring

texels from said texture main memory for bilinear texture filtering; and

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a texture cache arbiter for scheduling and controlling the actual transfer of texels from said texture main memory into the texture cache memory and controlling the outputting of texels for each pixel to a interpolating filter from the cache memory.

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